Purchasing Receipts

Dart Hawkesbury 1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada Tel (613) 632-5200

\$141.90 McMaster-Carr Supply Co, Supplier Name \$141.90 Total Received Accounting Container Status Receive Price/Unit Aging Past Quantity Job No No Stock 4/13/2018 \$ 70.95 / ft S060873 2 Due Date 2 4/16/2018 Purchased Description Part Project Equipment Order Item No 2 Total: 440C SS Rod, 5/8"" dia. 1328768 PO No Supplier Item No No No 1 2% 10 Net 30 PO039579 MCM001-

7

Plex 4/13/2018 11:15 AM dart. Tollis. Andrew



Dart Aerospace Ltd. 1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada

PURCHASE ORDER PO039579

Tel (613) 632-5200

Supplier:

MCM001-VU

McMaster-Carr Supply Co,

P.O. Box 7690

Chicago, IL 60680-7690 USA

Phone: 330 995 5500 Fax: 330 995 9600 PO No:

PO039579

PO Date:

4/11/18

Due Date:

4/16/18

Purchase Order

Revision: Revision Date:

Ship-To Contact:

Lavoie, ChantalPhone:

clavoie@dartaero.com

Ship To:

1270 Aberdeen Street

Hawkesbury

ON

K6A 1K7 Canada Phone: 613-632-5200 Via:

Ground

Pymt Terms:

2% 10 Net 30

Freight Terms:

Special Comments:

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Line		Supplier		Items	Due	Order	Received		Unit	Extended
Item	Part	Part No	Description	Status	Date	Quantity	Quantity		Price (USD)	Price
1	8695K761	41 lenght	Polyurethane Rubber Rod, Abrasion- Resistant 7/8" Dia., 80A (Hard) Abrasion -Resistant Polyurethane Rubber Rod 1-1/4" Diameter	Firmed	4/16/18	8 ft	O ft	8 ft	\$22.795/ft	\$182.36
2	9665K85	1/pk @ 20" long	Extension Spring 1/4" x 0.026" SS	Firmed	4/16/18	16.667 ft	O ft	17 ft	\$5.4482179/ft	\$90.81
Line Item Note	10 pcs of 20	0" long = 16.6	666						y sometimes are stated to the second	
3	C2-9-3	25/pk	Clock Spring Cover Screw	Firmed	4/16/18	50 Ea	0 Ea	50 Ea	\$0.1356/Ea	
4	C2-11-2		Locating Pin	Firmed	4/16/18	60 Ea	0 Ea	60 Ea	\$0.4035/Ea	
5	41735K11	1/pk	2-125 Air Regulator	Firmed	4/16/18	1 Ea	0 Ea	1 Ea	\$32.06/Ea	\$32.06
6	1328T68	2 ft long	440C SS Rod, 5/8" dia.	Firmed	4/16/18	2 ft	2510 ff	2 ft	(8/64/13	
7	9453K203	A	Water-Resistant, 1/32" Thick, 36" x 5 Feet	Firmed	4/16/18	15 st	f 0 s	f 15 st	\$1.381333/s	\$20.72
	İ	1	1		1		1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	1	Grand Total:	\$498.84

Order Notes



Plex 4/12/18 2:45 PM dart.lavoie.chanta



200 Aurora Industrial Pkwy Aurora OH 44202-8087 330-995-5500 cle.sales@mcmaster.com Dart Aerospace Ltd 1270 Aberdeen St Hawkesbury ON K6A 1K7 Canada Packing List

Purchase Order PO039579

Order Placed By Chantal Lavoie

McMaster-Carr Number 2090854-01

Page 1 of 1 04/12/2018

Line Product

2090854-01

Ordered Shipped

1

Each

1328T68

Hardened 440C Stainless Steel Rod, 5/8" Diameter, 2 Feet Long

691

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 473	2876 14 201	-	PO / BATCH	NO.: <u>03 9</u>	579/506	
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	21		THIC	CKNESS ORDE CKNESS RECEI ET SIZE ORDE ET SIZE RECEI	VED: 5	8 1/4 1/4
DESCRIPTION	NCR (Check Y/N)			COMMEN	ΓS	
SURFACE DAMAGE	X (N)					
CORRECT FINISH	YN					
CORROSION	YN					
CORRECT GRAIN DIRECTION	Y) N	111	<u>'</u>			
CORRECT MATERIAL PER M-DRAWING CORRECT THICKNESS	Y) N	10/	17			
PHOTO REQUIRED	YN					
	Ø N	Potto	229579	Vast 1	1328+6	P
CORRECT MATERIAL IDENTFICATION	Mark .	LU FT	2011	Par / N	13200	, c
CORRECT M# ON THE MATERIAL	Y) N	1922				
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (R)					
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)				
CUT SAMPLE PIECE	OF MAT	EDIAL A	ND DBEEOD	MALIADDNE	20 OHEOK	
COT SAMPLE FIECE			SULTS BELOV		SS CHECK.	
W- W-		HRC	HRB	DURA	DUR D	WEBSTER
TYPE OF MATERIAL				301.71	DONE	WEBSTEIN
SIZE OF TEST SAMPLE						
HARDNESS / DUROMETER READIN	G					
	testers	located in	the Quality Office	<u>ce</u>		
QC 18 INSPECTION			•	ENGINEER	ING SIGNOE	F (if required)
				LINGINEER	IIVO SIGIVOI	(ii required)
INSPECTED BY: DAS			SIGN	NED OFF BY:		
DATE: 0.80APR 14	2018			DATE:		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



- Yield Strength: 65,000 psi
- Hardness Rockwell C20 (Hard)
 Temper Rating: Softened (Annealed)
- Heat Treatable: Yes

Max. Hardness after Heat Treatment: Rockwell C60
 Specifications Mac/ASTM A276
 MS 5630

One of the hardest kines of stainless steel after heat treating, 440C offers excellent wear and abrasion resistance. It's often used for bearings, valves, and knife blades. This material maintain up to 800° F.

	13		21 1 11			1010213							
Dia.	Dia. Tolerance	Fabrication	Straightness Tolerance	Magnetic		1/2 ft.		1 ft.		ft.	3 f		6 ft.
1/4"	-0 003" to 0 003"	Cold Worked	0.075" per 6 ft.	Properties Magnetic	88985K93	Lg.		Lg.		g.	Lg		Lg.
3/6"	-0.003" to 0.003"	Cold Worked	0.075" per 6 ft		88985K94	\$4.27		.11	\$12.7		\$17.1		\$29.62
7/16"	-0.003" to 0.003"	Cold Worked		Magnetic		7.53		.56	22.5		30.3		52.32
1/2"	-0.003" to 0.003"	Cold Worked	0.075" per 6 ft. 0.075" per 6 ft.	Magnetic	88985K955	9.00		.00	26.8		36.2		62.50
9:16"	-0.003" to 0.003"			Magnetic	83985K96	9.14		.23	27.2		36.8		63.45
578"	-0.003 to 0.003	Cold Worked	0.075" per 6 ft	Magnetic	88985K97	11.03		.39	32.9		44.4		76.61
		Cold Worked	0.075" per 6 ft.	Magnetic	88985K98	11.76		.61	35.		47.3		81.69
11/16		Cold Worked	0 075" per 6 ft	Magnetic	88985K15	13.92		.21	41.5		56.09		96.70
	-0 003" to 0 003"	Cold Worked	0.075" per 6 ft.	Magnetic	\$8985K18	15.15		.25	45.2		61.0		105.19
13/16		Cold Worked	0.075" per 6 ft	Magnetic	85985K21	17.78		.63	53.0		71.6		123.47
7/8"	-0.003" to 0.003"	Cold Worked	0.075" per 6 ft.	Magnetic	88995K24	20.61		36	61.5		83.03		143.15
15/16		Cold Worked	0.075" per 6 ft.	Magnetic	88985K26	23.67		.45	70.6		95.33		164.36
1"	-0.003" to 0.003"	Cold Worked	0.075" per 6 ft.	Magnetic	88985K29	25.02		.70	74.7		100.79		173.77
T 1/16"	-0.003" to 0.003"	Cold Worked	0.075" per 6 ft.	Magnetic	88985K32	27.62		.03	82.4		111.25		191.81
1 1:8"	-0.003" to 0.003"	Cold Worked	0 075" per 6 ft.	Magnetic	88985K35	30.38		.64	90.7		122.38		211.00
1 3/16"	-0 003" to 0 003"	Cold Worked	0.075" per 6 ft.	Magnetic	88985K37	31.97		.28	95.4		128.76	5	222.00
1.14"	-0.003" to 0.003"	Cold Worked	0 075" per 6 ft	Magnetic	88985K41	35.40	59	.00	105.7	0	142.58	3	245.82
1 5/16"	-0.003" to 0.003"	Cold Worked	0.075" per 6 ft.	Magnetic	88985K43	39.05	65		116.6	1	157.28	3	271.18
138"	-0.003" to 0.003"	Cold Worked	0.075" per 6 ft.	Magnetic	88985K46	42.87	71	45	128.0	1	172.67	7	297.70
1 7/16"	-0.003" to 0.003"	Cold Worked	0.075" per 6 ft.	Magnetic	88985K49	45.57	75	96	136.0	19	183.56	5	316.48
1 1/2"	-0.003" to 0.003"	Cold Worked	0.075" per 6 ft.	Magnetic	88985K53	48.70	81	17	145.4	3	196.16	5	338.21
1.5%"	-0.003" to 0.003"	Cold Worked	0 075" per 6 ft.	Magnetic	83985K55	54.21	90	35	161.8	7	218.34	1	376.44
1 3/4"	-0.003" to 0.003"	Cold Worked	0.075" per 6 ft.	Magnetic	88985K57	62.87	104	78	187.7	4	253.23	3	436.60
1 7:0"	-0.003" to 0.003"	Cold Worked	0 075" per 6 ft	Magnetic	88985K59	70.68	117	80	211.0	6	284.69)	490.84
2"	-0 003" to 0 003"	Cold Worked	0.075" per 6 ft.	Magnetic	88985K77	76.55	127	58	228.5	8	308.31	Ĺ	531.57
2 3:6"	0" to 0.047"	Hot Rolled	0 075" per 6 ft	Magnetic	839851,79	80.73	134.	55	241.0	8	325.17	7	560.64
2 1/4"	0" to 0.047"	Hot Rolled	0.075" per 6 ft.	Magnetic	88985K81	87.49	145.	82	261.2	6	352.39)	607.57
2 3/6"	0" to 0.047"	Hot Rolled	0.075" per 6 ft.	Magnetic	83985K82	94.31	157	19	281.6	3	379.87	,	654.95
2 1.0"	0" to 0.047"	Hot Rolled	0.075" per 6 ft.	Magnetic	88985K83	98.85	164.	75	295.1	8	398.15		686.47
2 5/8"	0" to 0.047"	Hot Rolled	0.075" per 6 ft.	Magnetic	88985K84	108.98	181.	63	325.4	2	438.94	1	756.80
2 3:4"	0" to 0.047"	Hot Rolled	0.075" per 6 ft.	Magnetic	88985K85	119.58	199.	30	357.0	8	481.64		830.42
3"	0" to 0 047"	Hot Rolled	0,075" per 6 ft.	Magnetic	88985K86	144.45	240.	75	431.3	4	581.81	1	,003.12
3 1.4"	0" to 0.047"	Hot Rolled	0 075" per 6 ft	Magnetic	88985K88	161.66	269.	43	482.7	3	651.12		122.62
3 1/2"	0" to 0.047"	Hot Rolled	0.075" per 6 ft.	Magnetic	88985K89	208.71	347.	84	623.2	2	840.62		449.35
3 3:4"	0" to 0.073"	Hot Rolled	0 075" per 6 ft	Magnetic	88985K91	234.45	390.		700.1		944.32		,628.13
4"	0" to 0.078"	Hot Rolled	0.075" per 6 ft.	Magnetic	88985K92	266.16	425.		794.7		1,035.05		848.31
Dia.	Dia. Tolerance	Fabrication	Straightness Tolerance	Magnetic Properties	Lg. Tolerance			1"	Lg.	2"	Lg. 3"	110	4" 2
2"	-0.003" to 0.003"	Cold Worked	0.075" per 6 ft.	Magnetic	0" to 1/8"	88985k	115			\$36		Lg.	4" Lg.
2 1:4"	0" to 0.047"	Hot Rolled	0.075" per 6 ft.	Magnetic	0" to 1/8"	889858			1.27				\$69.10
3"	0" to 0.047"	Hot Rolled	0.075" per 6 ft.	Magnetic	0" to 1/8"	88985k			5.11			4.68	78.98
200	V 10 0.01.		o.o.o peroit.	iviagnetic	0 10 1/6	ORMODE	(130	33	0.11	00	.21 90	0.28	130.41

Dia.	Dia. Tolerance	Fabrication	Straightness Tolerance	Magnetic Properties	Lg. Tolerance		1" Lg.	2" Lg.	3" Lg.	4" Lq.
2"	-0.003" to 0.003"	Cold Worked	0.075" per 6 ft.	Magnetic	0" to 1/8"	88985K115	\$18.61	\$36.15	\$47.84	\$69.10
2 1:4"	0" to 0.047"	Hot Rolled	0.075" per 6 ft.	Magnetic	0" to 1/3"	88985K125	21.27	41.31	54.68	78.98
3"	0" to 0.047"	Hot Rolled	0.075" per 6 ft.	Magnetic	0" to 1/8"	88985K135	35.11	68.21	90.28	130.41
3 1/2"	0" to 0.047"	Hot Rolled	0.075" per 6 ft.	Magnetic	0" to 1/8"	88985K 145	50.73	98.56	130.44	188.42
4"	0" to 0.078"	Hot Rolled	0.075" per 6 ft.	Magnetic	0" to 1/8"	88985K165	64.69	125.69	166.35	240.28
5"	0" to 0 078"	Hot Rolled	0.075" per 6 ft.	Magnetic	0" to 1/6"	88985K175	78.34	152.30	201.52	291.21

Hardened 440C Stainless Steel Rods



- Yield Strength: 275,000 psi
- Hardness: Rockwell C55 (Very Hard)Temper Rating, Hardened
- · Specifications Met. ASTM A276, AMS 5630

These rods are hardened for superior strength and wear resistance. One of the hardest types of stainless steel after heat treating, 440C offers excellent wear and abrasion resistance. It's often used for bearings, valves, and knife blades. This material maintains its corrosion resistance in temperatures up to 800° F.

Di	ia.	Dia. Tolerance	Mechanical Finish	Straightness Tolerance	Magnetic Properties		1/2 ft. Lg.	1 ft. Lg.	2 ft. Lg.	
	178"	-0 0002" to 0"	Precision Ground	0.006" per ft	Magnetic	1328T18	\$34.53	\$57.56	\$95.93	
	3/16"	-0.0002" to 0"	Precision Ground	0.006" per ft.	Magnetic	1328T28	42.20	70.33	117.21	
	174	-0 0002" to 0"	Precision Ground	0.006" per ft	Magnetic	1328T38	43.67	72.79	121.31	
	3/9"	-0.0002" to 0"	Precision Ground	0.006" per ft.	Magnetic	1328T48	44.78	74.64	124.40	
6	1'2"	-0.0002" to 0"	Precision Ground	0.006" per ft.	Magnetic	1328758	47.13	78.55	130.92	
N. Berlin	5/8"	-0.0002" to 0"	Precision Ground	0.006" per ft.	Magnetic	1328768	51.08	85 14	141.90	10.00
	3/4"	-0.0002" to 0"	Precision Ground	0.006" per ft.	Magnetic	1328T78	58.99	98.31	163.85	1020
	778"	-0.0002" to 0"	Precision Ground	0.006" per ft	Magnetic	1328788	61.92	103.20	172.00	
1"		-0.0002" to 0"	Precision Ground	0.006" per fi	Mannetic	1328TOR	67.83	113.05	199 42	

Tight-Tolerance 440C Stainless Steel Rods



- Yield Strength: 65,000 ps;
- Hardness: Rockwell C20 (Hard)
 Temper Rating: Softened (Annealed)
 Heat Treatable: Yes
- Max. Hardness after Heat Treatment: Rockwell C60
- Specifications Met: ASTM A276, AMS 5630

The diameter of these precision-ground rods is held to a -0.000 stainless steel after heat treating, 440C offers excellent wear ar bearings, valves, and knife blades. This material maintains its cr 800° F.

Dia.	Dia. Tolerance	Straightness Tolerance	Magnetic Properties		1/2 ft. Lg.
1/8"	-0.0005" to 0"	1/16" per ft.	Magnetic	9094404	\$7.13
5/32"	-0 0005" to 0"	1/16" per ft.	Magnetic	9094F30	8.00
3/16"	-0.0005" to 0"	1/16" per fl.	Magnetic	9094166	8.91
124"	-0.0005" to 0"	1/16" per ft.	Magnetic	9094714	10.24
5:16"	-0 0005" to 0"	1/16" per ft.	Magnetic	9094815	10.86
3/8"	-0.0005" to 0"	1/16" per ft.	Magnetic		12.13
7716"	-0 0005" to 0"	1/18" per ft.	Magnetic	9094 - "	12.89